

R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

SUMMARY OF TELEPHONE INTERVIEW

In a telephone interview on November 19, 2007, between Applicant's representative, Robert Miller, Examiner Huber and the Examiner's Supervisor, Mehrdad Dastouri, claims 1-22 and the Boyce and Kim references were discussed. Examiner Huber stated that Boyce discloses outputting two fields in response to a bitstream, albeit the second field is blank. Examiner Huber agreed that including a limitation that the first field picture comprises macroblock rows containing the data for the plurality of vertical lines from a first field of the frame picture and the second field picture comprises macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture would obviate the rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Boyce.

SHOWING UNDER 37CFR 1.116(b)

After a final rejection or other final action in an application, an amendment touching the merits of the application may be admitted upon a showing of good and sufficient reasons why the amendment is necessary and was not earlier presented (see 37

CFR 1.116(b) (3)). The amendment to the claims is necessary to overcome the rejection of the previously presented claim 1 under 35 U.S.C. §102(b) as being anticipated by Boyce et al. (see Summary of Telephone Interview above). The amendment would not reasonably have been presented earlier because the rejection under 35 U.S.C. §102(b) based on Boyce et al. was presented for the first time in the final Office Action mailed September 26, 2007. As such, Applicant's representative respectfully requests that the amendment be admitted.

SUPPORT FOR CLAIM AMENDMENTS

Support for the amendments to the claims can be found in the drawings as originally filed, for example, in FIGS. 5 and 6, and in the specification as originally filed, for example, on page 3, lines 9-20, on page 4, lines 13-19, and on page 6, lines 2-14. As such, no new matter has been introduced.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Boyce et al. (U.S. Patent No. 5,592,299; hereinafter Boyce) has been obviated by amendment and should be withdrawn.

In contrast to Boyce, the presently claimed invention (claim 1) provides a method for decoding a bitstream comprising the steps of (A) receiving a first bitstream, where the first bitstream

comprises an intra-only frame picture encoded bitstream comprising alternating macroblock rows, with each row containing data for a plurality of vertical lines from a single respective field, (B) generating a first field picture and a second field picture in response to the first bitstream, where the first field picture comprises macroblock rows containing the data for the plurality of vertical lines from a first field of the frame picture and the second field picture comprises macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture, and (C) generating a second bitstream comprising the first field picture and the second field picture, where the second bitstream comprises an intra-only field picture encoded bitstream and is decodable as interlaced field pictures using an MPEG-2 compliant decoder. Claims 10 and 11 include similar limitations.

Boyce does not disclose or suggest each and every element of the presently claimed invention, arranged as in the claims, as required by MPEP §2131. Specifically, Boyce does not disclose or suggest the steps of (B) generating a first field picture and a second field picture in response to the first bitstream, where the first field picture comprises macroblock rows containing the data for the plurality of vertical lines from a first field of the frame picture and the second field picture comprises macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture and (C) generating a second

bitstream comprising the first field picture and the second field picture, where the second bitstream comprises an intra-only field picture encoded bitstream and is decodable as interlaced field pictures using an MPEG-2 compliant decoder, as presently claimed.

In particular, Boyce states:

In accordance with the present invention, one field of a pair of field pictures is retained while the other field is replaced with a field that is represented by less data than the field which it is replacing. In order to insure MPEG compliance, the first field of the pair of field pictures is made, or selected to be an intracoded("I-") field picture.

For example, in one embodiment, if a first field, i.e., an I-field and a second field, which could be either an I-field or a predictively coded ("P-") field of a field picture pair are received, the second field picture is replaced with a field picture, e.g., a P-field which requires very little data.

In one embodiment, the second field is made to be a P-field which is represented by very few bits by setting all difference data and motion vectors to 0, so that most of the macroblocks would be skipped resulting in a transparent field (column 6, lines 27-43 of Boyce).

Since Boyce states that the second field is replaced with a P-field which requires very little data, it follows that the second field according to Boyce does not comprise macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture, as presently claimed. Furthermore, since Boyce states that the second field is replaced with a P-field, it follows that Boyce does not disclose or suggest generating a second

bitstream comprising the first field picture and the second field picture, where the second bitstream comprises an intra-only field picture encoded bitstream and is decodable as interlaced field pictures using an MPEG-2 compliant decoder, as presently claimed. Therefore, Boyce does not, expressly or inherently, disclose or suggest each and every element of the presently claimed invention, arranged as in the present claims. As such, the presently claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

Claims 2-9 and 12-22 depend, directly or indirectly, from either claim 1 or claim 11 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 2-22 under 35 U.S.C. §103(a) as being unpatentable over Boyce in view of Ng et al. (U.S. Patent No. 5,185,819; hereinafter Ng) and Kim et al. (U.S. Patent No. 5,926,573; hereinafter Kim) has been obviated by appropriate amendment and should be withdrawn.

For the reasons presented above, Boyce does not teach or suggest each and every element of the presently claimed invention. Ng and Kim do not cure the deficiencies of Boyce. Specifically, Ng is directed to a video signal compression apparatus for

independently compressing odd and even fields (Title of Ng). In a video compression system as taught by Ng, odd and even fields of a video signal are independently compressed in sequences of intraframe and interframe compression modes. Since the odd and even fields of the video signal of Ng are independently compressed in sequences of intraframe and interframe compression modes, a person of ordinary skill in the art would not view the compressed bitstream of Ng as comprising either an intra-only frame picture encoded bitstream or an intra-only field picture encoded bitstream as presently claimed.

Furthermore, Ng and Kim do not appear to teach or suggest the steps of (A) receiving a first bitstream, where the first bitstream comprises an intra-only frame picture encoded bitstream comprising alternating macroblock rows, with each row containing data for a plurality of vertical lines from a single respective field, (B) generating a first field picture and a second field picture in response to the first bitstream, where the first field picture comprises macroblock rows containing the data for the plurality of vertical lines from a first field of the frame picture and the second field picture comprises macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture, and (C) generating a second bitstream comprising the first field picture and the second field picture, where the second bitstream comprises an intra-only field picture encoded

bitstream and is decodable as interlaced field pictures using an MPEG-2 compliant decoder, as presently claimed. Therefore, the combination of Boyce, Ng and Kim does not appear to teach or suggest each and every element of the presently claimed invention as required by MPEP §2143. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Furthermore, modification of Boyce to (A) receive a first bitstream, where the first bitstream comprises an intra-only frame picture encoded bitstream comprising alternating macroblock rows, with each row containing data for a plurality of vertical lines from a single respective field, (B) generate a first field picture and a second field picture in response to the first bitstream, where the first field picture comprises macroblock rows containing the data for the plurality of vertical lines from a first field of the frame picture and the second field picture comprises macroblock rows containing the data for the plurality of vertical lines from a second field of the frame picture, and (C) generate a second bitstream comprising the first field picture and the second field picture, where the second bitstream comprises an intra-only field picture encoded bitstream and is decodable as interlaced field pictures using an MPEG-2 compliant decoder, as presently claimed, would appear to make the apparatus of Boyce unsatisfactory for its intended purpose. If a proposed modification would render the

prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification (MPEP §2143.01(V) citing *In re Gordon*). Boyce is directed to a method and apparatus for reducing the amount of data required to represent a video frame (Title of Boyce). Boyce teaches away from interlaced video. In particular, Boyce states:

The present invention is directed to methods and apparatus for processing digital video data to reduce the amount of video data required to represent a video frame, and more particularly to a method of representing video frames as field pictures in a manner that makes the field pictures **particularly well suited for use during video tape recorder ("VTR") trick play operation** (column 3, lines 47-53 of Boyce).

Boyce further states:

In the case of trick play, where a frame may be repeated several times, **the use of interlaced video may cause annoying flicker as the first and second fields of a video frame which includes motion, are repeated several times**. For example, if during trick play, a frame represented as a field picture is repeated three times, the fields of the frame would be displayed in the following sequence field 1, field 2, field 1, field 2, field 1, field 2.

In addition, **it is desirable that the low resolution video frames used for trick play operation produce a minimal amount of flicker which can be annoying to a viewer** (column 3, lines 12-42 of Boyce).

Since the proposed modification of Boyce would not reduce the

amount of data used to represent a video frame and would produce interlaced field pictures, the proposed modification would render the method and apparatus of Boyce unsatisfactory for its intended purpose. Therefore, there is no suggestion or motivation to make the proposed modification (MPEP §2143.01(V) citing *In re Gordon*). As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Claims 2-9 and 12-22 depend, directly or indirectly, from either claim 1 or claim 11 which are believed to be allowable. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be withdrawn.

Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicant's representative between the hours of 9 a.m. and 5 p.m. ET at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit
Account No. 12-2252.

Respectfully submitted,

CHRISTOPHER P. MAIORANA, P.C.



Robert M. Miller
Registration No. 42,892

Dated: November 26, 2007

c/o Lloyd Sadler
LSI Corporation

Docket No.: 02-6421 / 1496.00304